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(54) Method of determining a drilling parameter of a roller-cone drill bit

(57) Disclosed herein is a method for determining a drilling parameter of each one of a plurality of roller cones on a roller cone drill bit during drilling, comprising: calculating, from a geometry of cutting elements on each of the roller cones and an earth formation being drilled by the drill bit, the drilling parameter acting on each of the cutting elements; incrementally rotating the bit and recalculating the drilling parameter acting on each of the cutting elements; repeating the incrementally rotating and recalculating for a selected number of incremental rotations; and combining the drilling parameter acting on the cutting elements on each one of the roller cones.

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EUROPEAN SEARCH REPORT

Application Number
EP 04 02 5234

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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A	WARREN T M ET AL: "Drag-bit performance modeling" SPE DRILLING ENGINEERING, vol. 4, no. 2, June 1989 (1989-06), pages 119-127, XP002266079 * the whole document *	1-10	TECHNICAL FIELDS SEARCHED (IPC) E21B
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	28 March 2006	Bellingacci, F

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 04 02 5234

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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